[Fig.1]

A1:   first flange

A2:   second flange

A3:   second axis

A4:   first axis

[Fig.2]

A1:   Take out worked work from work station

A2:   Input unworked work to work station →→→ start working

A3:   Carry out worked work to carry out station

A4:   Take out unworked work (of next time) from carry in station

[Fig.3]

11:   instruction portion

12:   instruction data storing area

13:   parameter storing area

14:   interpolate operation portion

15:   drive portion

[Fig.4]

A1:   START of look ahead processing

101:   interpret movement instruction and calculate movement time N etc.

103:   select flange constituting object of interpolate control

104:   control object is first flange?

105:   third axis = 3A axis

       fourth axis = 4A axis

       f1 axis = 3B axis

       f2 axis = 4B axis

106:   third axis = 3B axis

       fourth axis = 4B axis

       f1 axis = 3A axis

       f2 axis = 4A axis

[Fig.5]

A1:   START of current processing

202:   update K

204:   operate all axes to axis angle corresponding to θ of θ = θs + K/N (θe - θs)

205:   execute interpolate control at first axis to fourth axis to orthogonal value corresponding to P of P = Ps + K/N (Pe - Ps)

206:   operate f1, f2 axes to axis angle corresponding to θ of θ = θs + K/N (θe - θs)

[Fig.6]

A1:   MOVJ C000

       ... PTP control to the attitude

A2:   first axis

       second axis

A3: first flange side

A4: second flange side

A5: MOVL C001 FRG = 1

⸺ linear interpolate on side of first flange

PTP control on side of second flange

A6: CP control by the axes

A7: first axis

second axis

[Fig.8]

1: carry in station

2: work station

3: carry out station

4: handling robot

5: hand

A1: running axis

[Fig.9]

A1: Take out worked work from work station

A2: Carry out worked work to carry out station

A3: Take out unworked work from carry in station

A4: Input unworked work to work station →→→ start working